Chapter 2 New Jersey's Water Resources

New Jersey is the fifth smallest state in the nation and contains a wide variety of land use types, water resources, geologic characteristics, and natural biota and fauna. Within the state's 7,788 square miles are 127 miles of coastline; 8,020 miles of rivers and streams (based upon USEPA's River Reach File #3 (RF3) hydrology; and 113 square miles (72,590 acres) of lakes and ponds larger than 2 acres. In addition, there are 1,482 square miles of fresh and saline marshes and wetlands, and 725 square miles of estuarine waters. A summary of the state's population and water resources is presented in Table II-2.1 below:

Table II-2.1: New Jersey Water Resources Atlas

State Population (1990) State Surface Jurisdictional Area State Surface Area Rivers and Streams Miles of rivers and streams (total) Miles of nontidal rivers and streams Miles of tidal river and streams Miles of perennial rivers and streams Miles of intermittent (non-perennial) streams (nontidal and tidal) Miles of ditches and canals Miles of ditches and canals Alternatives (nontidal and tidal) Miles of miles shared rivers/streams (nontidal and tidal) Lakes, Ponds and Reservoirs
State Surface Area 7,788 sq. miles² Rivers and Streams Miles of rivers and streams (total) 8,020 Miles of nontidal rivers and streams 6,500 Miles of tidal river and streams 1,520 Miles of perennial rivers and streams (nontidal and tidal) 7,710 Miles of intermittent (non-perennial) streams (nontidal and tidal) 310 Miles of ditches and canals⁴ 1,235 Border miles shared rivers/streams (nontidal and tidal) 197 Lakes, Ponds and Reservoirs
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Border miles shared rivers/streams (nontidal and tidal) Lakes, Ponds and Reservoirs
Lakes, Ponds and Reservoirs
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Number of lakes/reservoirs/ponds (2 acres and larger) 3,600
Acres of lakes/reservoirs/ponds (2 acres and larger) 72,590
Number of significant publicly owned lakes/reservoirs/ponds 380
Acres of significant publicly owned lakes/reservoirs/ponds 24,000
Estuaries and Ocean
Square Miles of Estuaries/Harbors/Bays 725 ³
Miles of Ocean Coast (linear miles) 127
Miles of Ocean Coast (sq. mi. of jurisdictional waters) 446
Wetlands
Acres of Freshwater Wetlands 739,160
Acres of Tidal Wetlands 209,269

Notes:

- 1 Includes coastal waters within New Jersey jurisdiction as shown on Figure II-2, based on the sum of 151 HUC-11 watersheds using 1986 Land Use/Land Cover GIS coverage.
- 2 Excludes coastal waters within New Jersey jurisdiction as shown on Figure II-1, based on the sum of 5 Water Regions using 1986 Land Use/Land Cover GIS coverage.
- 3 Includes all waterbodies below the head of tide.
- 4 Not included in the total miles of rivers and streams

Part II: Background Chapter 2: New Jersey's Water Resource It should be noted that the number of river miles presented in this report (8,020 miles) are notably larger than the 6,450 miles reported in prior New Jersey Water Quality Inventory Reports. River miles in this report are determined by a computer based mapping system which presents hydrology accurate down to a USGS 1:100,000 scale map. This provides the state's hydrology with much greater detail and accuracy than the maps used to estimate total river mileage presented in earlier reports. In addition, tidal rivers and streams are included in total estuary area to prevent double counting.

The five Water Regions in the state are shown on Figure AII-1 in the Appendix. These include the Northwest (1,226 sq. miles), Lower Delaware (2,228 sq. miles), Northeast (953 sq. miles), Raritan (1,284 sq. miles) and Atlantic Coastal (2,877 sq. miles). Drainage areas include New Jersey portions only.

The 5 Water Regions have been divided into 20 Watershed Management Areas (WMA's) for Management purposes, as shown on Figure AII-1 in the Appendix. Watershed Management Areas are comprised of 151 HUC-11 watersheds, which are shown on Figure AII-2. These 151 HUC-11 watersheds are part of a national system of watershed based hydrologic units (HUC's) developed by the United States Geological Survey, United States Soil Conservation Service and the US Environmental Protection Agency.